Practice Quiz: Atomic Structure, P,N,E, Isotopes, Electron Configuration, etc.

1. Explain in **detail** Rutherford’s experiment and its significance to the model of the atom. Include a labeled diagram!!!

2. Species Atomic Mass Atomic No. Protons Neutrons Electrons Charge

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| tritium |  |  |  |  |  |  |
| 88 +2  Sr  38 |  |  |  |  |  |  |
|  |  | 22 |  | 26 |  | 0 |

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3. An unknown element has the following information:

a. Isotope Mass Isotope Abundance

17.989 82%

19.101 18%

Calculate its average atomic mass

b. Calculate the abundance of each of the isotopes given the following information:

Average atomic mass= 79.215 amu Isotope 78 = 78.112amu Isotope 79 = 79. 521 amu

4. Electron Arrangement

Long Method Energy Level Energy Level Electron Configuration Orbital Notation Electron Dot

Notation Diagram

a. Sulfur

5. Short Method / Noble Gas Core(kernel)

a. Tungsten X X

6. Draw the electron configuration(long method) for element # 116